

## **DETAILED ACTION**

### ***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Lawrence Harbin (Reg. No. 27,644) on 3/19/08.

The application has been amended as follows:

- 1a. Cancel claims 1-8, 26 and 27. (These claims have been cancelled without prejudice).

### ***Reasons for Allowance***

2. The following is an examiner's statement of reasons for allowance:
- 2a. Regarding claims 9, prior art of record fails to show an ultra wideband transmitter to transmit an ultra wideband signal, the transmitter comprising a timing device to gate the switching device to release the pulse directly into the filter network and pinch off conduction path of the switching device substantially within the first current cycle thereof whereby to reduce energy loss within the switching device and to deliver a substantial portion of the energy to the filter network, in combination with each and every other limitation of the claim.

- 2b. Claims 10-14 are allowed as being dependent on claim 9.
- 2c. Regarding claims 15, prior art of record fails to show an ultra wideband transmitter to supply a spectrally filtered ultra wideband signal to a load device comprising a timing device to gate the switching device to initiate release of a current pulse into the inductor of said resonant circuit and to pinch off conduction path of the switching device after issuance of the current pulse so as to substantially eliminate dissipation of energy across the switching device during resonance of the resonant circuit, in combination with each and every other limitation of the claim.
- 2d. Claims 16 and 17 are allowed as being dependent on claim 15.
- 2e. Regarding claims 18, prior art of record fails to show an ultra wideband transmitter to that produces an ultra wideband signal of desired energy level, to a load device comprising a timing circuit that controls the switching device to effect release of a current pulse into the pulse conditioning circuit and to switch off the switching device during a falling current cycle thereof whereby to dissipate a majority of pulse energy of the pulse conditioning circuit into a load device instead of the switching device, in combination with each and every other limitation of the claim.
- 2f. Claims 19-22 are allowed as being dependent on claim 18.
- 2g. Regarding claims 23, prior art of record fails to show a highly efficient ultra wideband transmitter having a power conversion ratio greater than 50% comprising a timing circuit to gate the switching device to open a conduction path

thereof to supply the pulse directly to the resonant circuit and to pinch off the conduction path of the switching device during a current cycle of the switching device after release of said pulse to said resonant circuit, whereby to dissipate greater than 50% of pulse energy of the resonant circuit into the antenna instead of the switching device, in combination with each and every other limitation of the claim.

- 2d. Claims 24 and 25 are allowed as being dependent on claim 23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Contact Information***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINEETA S. PANWALKAR whose telephone number is (571)272-8561. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. S. P./  
Examiner, Art Unit 2611

/Mohammad H Ghayour/  
Supervisory Patent Examiner, Art Unit 2611